INL has developed a way of using carbon-based fuels such as coal in combination with nuclear or renewable energy to produce liquid fuels with a lower life-cycle carbon footprint.

INL Meets with Wyoming Governor

INL Lab Director John Grossenbacher and other representatives from INL met on June 18 with Wyoming Gov. Dave Freudenthal in Cheyenne, Wyo. The visit with the governor is a continuation of an effort to strengthen the lab's relationship with states and provinces in the region. This is the second time in the past year that Grossenbacher has met with Freudenthal. He has also recently met with Utah Gov. Huntsman in Salt Lake City, and in January he hosted Montana Gov. Schweitzer in a tour of the lab.

Wyoming has a vast amount of natural resources, making it one of the most important states in the country from an energy perspective. The state is the number one producer of coal in the U.S. by a wide margin, with a large portion of that coal coming from the Powder River Basin in northeast Wyoming. Wyoming ranks second in the U.S. in natural gas production and seventh in crude oil production. It has the largest uranium and sodium bicarbonate reserves in the U.S., and it also has promising potential for wind energy.

The discussions with Gov. Freudenthal focused on how INL can be a resource to the state of Wyoming and to the region in general. As a federal research institution, INL has a unique role to play as an honest broker for technical energy problems that can be solved with math and science. Scientists and engineers at INL are able to perform research that industry and universities aren't able to perform.

With 85 percent of U.S. energy coming from coal, oil, and natural gas, it is clear that fossil fuels will play a major role in energy production for the foreseeable future. One of the benefits from INL is a potential study that could show ways to enhance the value of Wyoming's vast coal reserves. INL can help determine methods to reduce coal plant emissions by converting sulfur pollutants into marketable sulfur products and to capture carbon dioxide for enhanced oil recovery and other productive uses.

As the nation's lead laboratory for nuclear energy, INL is also able to provide recommendations and solutions for integrating emissions-free nuclear power into a hybrid approach to limit the environmental impacts from fossil fuels where they must continue to be used.

Researchers at the lab are working with cutting-edge companies to develop hybrid energy systems -- systems that combine two or more primary energy and/or carbon resources (e.g. fossil fuels, nuclear, renewables, or recycled carbon) to produce one or more energy products (e.g. electricity, liquid fuels, chemicals, or process heat). These approaches break through the traditional energy-supply stovepipes and take advantage of the positive attributes offered by fossil, renewable, nuclear and other energy sources by combining them in a way that is economically and environmentally sustainable.

For example, the lab has developed a way of using carbon-based fuels (such as coal, oil shale or biomass) in combination with nuclear or renewable energy to generate liquid fuels with a lower life-cycle carbon footprint than petroleum-based fuels. These hybrid energy approaches offer the potential to make cleaner and more efficient use of U.S.-based energy resources and reduce our reliance on energy imports.

During the visit to Wyoming, INL also met several other state and industry groups including the Wyoming Business Council, Wyoming State Geological Survey, the Wyoming Pipeline Authority, BP and NERD Gas.

A news article from the Wyoming Tribune-Eagle highlights INL's most recent discussions with the Wyoming governor.

Feature Archive